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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/986,815

11/13/2001

Peter Drummond Boys White

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22249

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03/31/2003

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EXAMINER

SELLERS, ROBERT E

ART UNIT

PAPER NUMBER

1712

DATE MAILED: 03/31/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/986,815

Applicant(s)

WHITE, PETER DRUMMOND  
BOYS

Examiner

Robert Sellers

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 21-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 21-34 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Independent claims 21, 32 and 34 define amine solidifying system (B) "under reaction conditions chosen for (A) and (B)." Original independent claims 1 and 16 as well as page 4, fifth paragraph, lines 2-3 only enable the reaction conditions "which yields a product with a Kofler Heat Bank melting point of less than 55°C."

Claims 21, 32 and 34 denote hardener system (C). Original claims 1 and 16 along with page 4, fifth paragraph, lines 8-9 only enable the hardener system (C) "which remains substantially unreacted under the conditions of reaction for (A) and (B)."

Claims 21, 32 and 34 require the complete reaction between (A) and (B) at room temperature. Page 7, third paragraph, lines 1-2 only enable the complete reaction at room temperature over a period of about 2-14 days.

The insertion of the omitted limitations would satisfy the enablement requirement as apparent in claim 1 of parent U.S. Patent No. 6,346,573.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 21-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 21, 32 and 34 state that "the reaction between (A) and (B) does not cause (C) or (E) to **substantially** react."

Page 5, lines 3-5 sets forth the reaction between (A) and (B) such that (C) or (E) is not caused to "**substantially**" react. Page 7, the last paragraph espouses a mixture reaction temperature rise to be "below that required to cause **significant** reaction between (A) and (C)." Original claim 1 limits a reaction between (A) and (B) which does not generate enough heat "to **significantly** activate reaction between the remaining epoxy groups and hardener (C), or expanding agent (E)." Original claim 16 characterizes (C) and (E) as remaining "**substantially** unreacted under the conditions of reaction chosen for (A) and (B)." [emphases added]

The arguments filed November 13, 2001 (Paper No. 5) have been considered but are unpersuasive.

Page 7, lines 11-13 merely refers to the avoidance of the selection of an amine solidifying agent (B) "which reacts to generate substantial heat." There is no mention of the effect of that "substantial heat" on the reactivities of hardener (C) or expanding agent (E).

Page 8, the last two lines espouses the shelf life stability of at least six months which does not address the relationship between the reaction involving (A) and (B) and the "**substantially**" or "**significantly**" non-reactivity of (C) and (E). Page 15, the last line, merely discusses unsuitability of the hindered aliphatic amine (B) when latent hardener (C) is incorporated which is not germane to the issue.

Nowhere in the specification nor original claims is there any illumination as to the parameters of what constitutes a "substantial" or "significant" non-reaction. At what threshold maximum reaction of (C) and (E) is the criteria of "substantial" or "significant" non-reaction satisfied. The cited court cases permitted the use of "substantially" in those instances where one skilled in the art could reasonably ascertain the boundaries of the term. There is no revelation as to what extent of reaction the limit of "substantial" or "significant" is reached.

Claim 26 does not concisely denote the epoxy groups. It is unclear what quantity is constituted by the term "majority." The term "cycloaliphatic" is not clearly indicated as "cycloaliphatic glycidyl." The phrase "and other epoxy resins" defines the polymer as opposed to the epoxy group. The scope of the what "other epoxy resins" besides the previously listed species cannot be ascertained considering page 5, second paragraph, which describes only the previously listed species.

The metes and bounds of the word "mainly" in claim 28, line 2, cannot be determined.

Claim 30 implements improper Markush language in the absence of the language "selected from the group consisting of . . . and." The phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed subject matter (MPEP § 2173.05(d)). The species of carboxylic acids and hydrazides are not properly denoted hardeners in the absence of there characterization as "polycarboxylic acids" and "polyhydrazides" since a curing agent must possess at least two functionalities to cure the epoxy groups of the reaction product of (A) and (B).

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 21-34 are rejected under the judicially created doctrine of double patenting over claims 1-14 of U. S. Patent No. 6,346,573 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter. The common subject matter is the method for making a one-component epoxy resin system (claims 1-12 of the patent vs. claims 21-31 and 34 of the application), the one-component epoxy resin system itself (claim 13 of the patent vs. claim 32 of the application), and the cured product obtained by heating the system (claim 14 of the patent vs. claim 33 of the application).


The limitation in the claims of the application that "the reaction between (A) and (B) does not cause (C) and (E) to **substantially** react [emphasis added]" is embraced by the stipulation in the patent that "the reaction between (A) and (B) does not generate enough heat in the container to activate reaction between the remaining epoxy groups and hardener (C), or expanding agent (E) (col. 12, lines 64-67 and col. 14, lines 29-32)." The realm of the lack of "substantial reaction" in the application includes any degree of reaction ranging from non-reaction to the non-activation reaction of the patent up to the substantial non-reaction of the application.

There is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

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The closest prior art to Tada et al., European Patent No. 514,335 and Japanese Patent No. 7-149928 do not recite the claimed expanding agent (E) present during the reaction of epoxy resin (A) with amine solidifying agent (B) which "does not generate enough heat to activate reaction between the remaining epoxy groups and hardener (C), or expanding agent (E)." The European and Japanese patents disclose the reaction of an epoxy resin and an amine in the presence of dicyandiamide as a latent hardener but without any other additives.

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3/19/03